

FIGURE 1

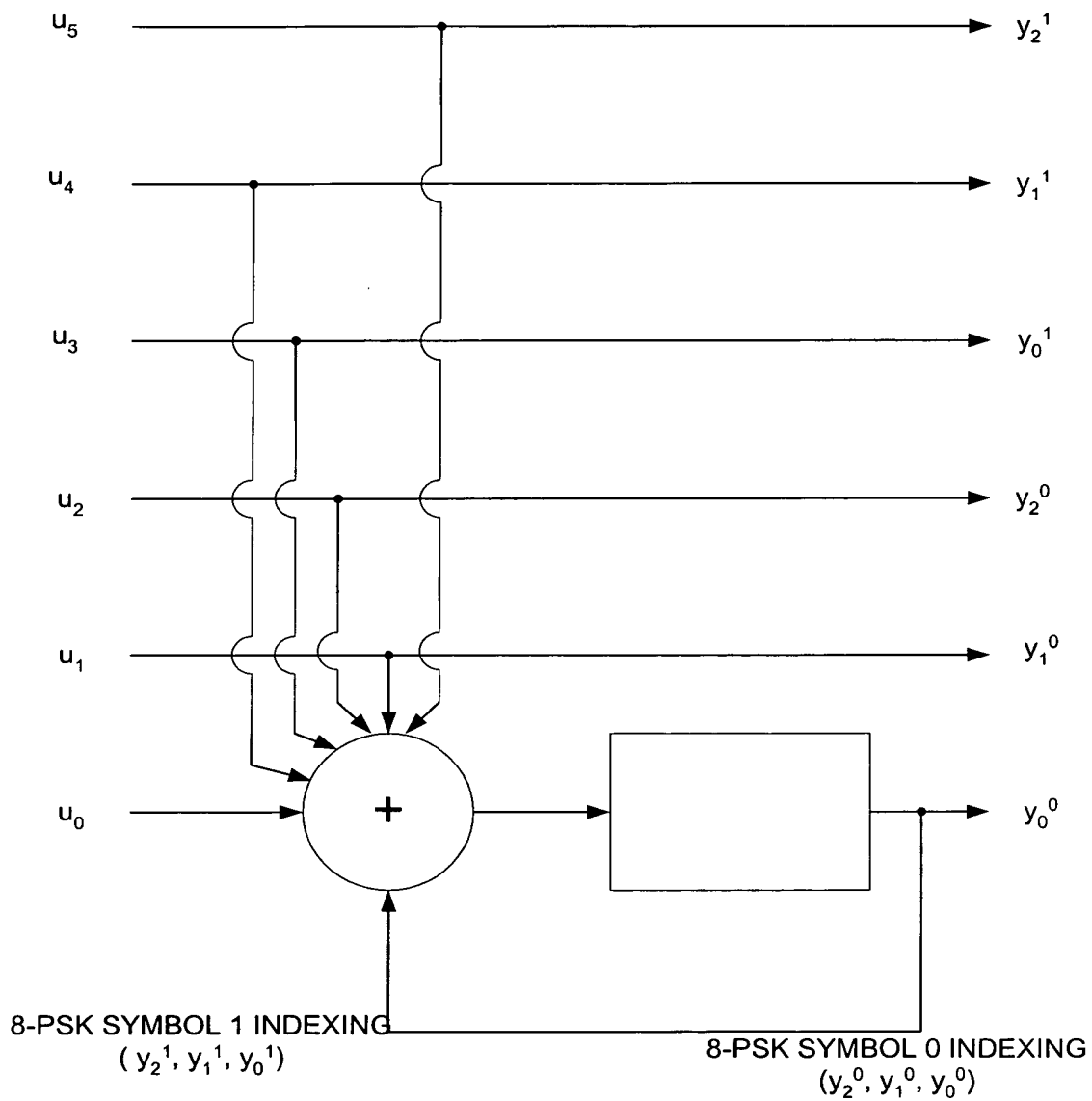


FIGURE 2

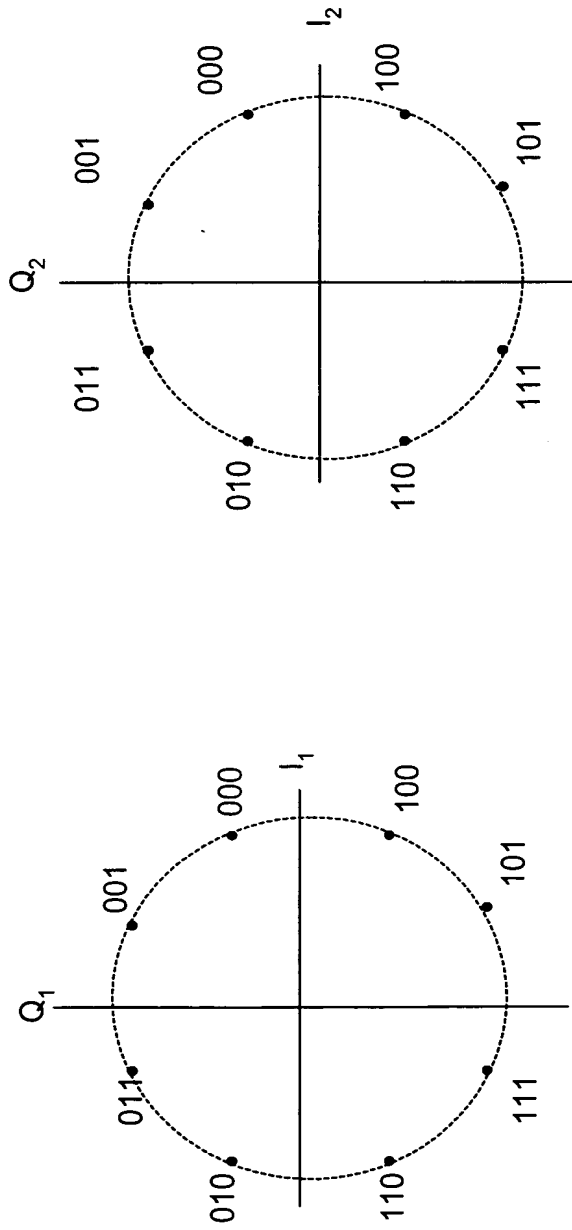


FIGURE 3

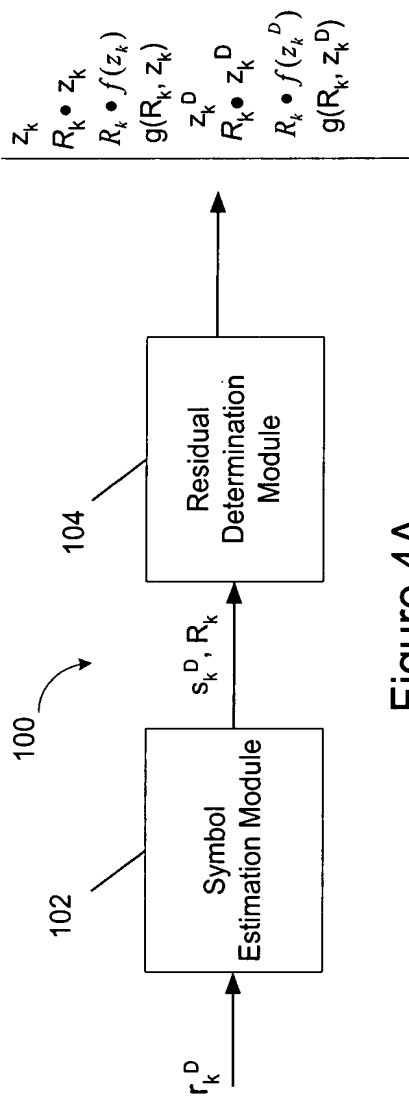


Figure 4A

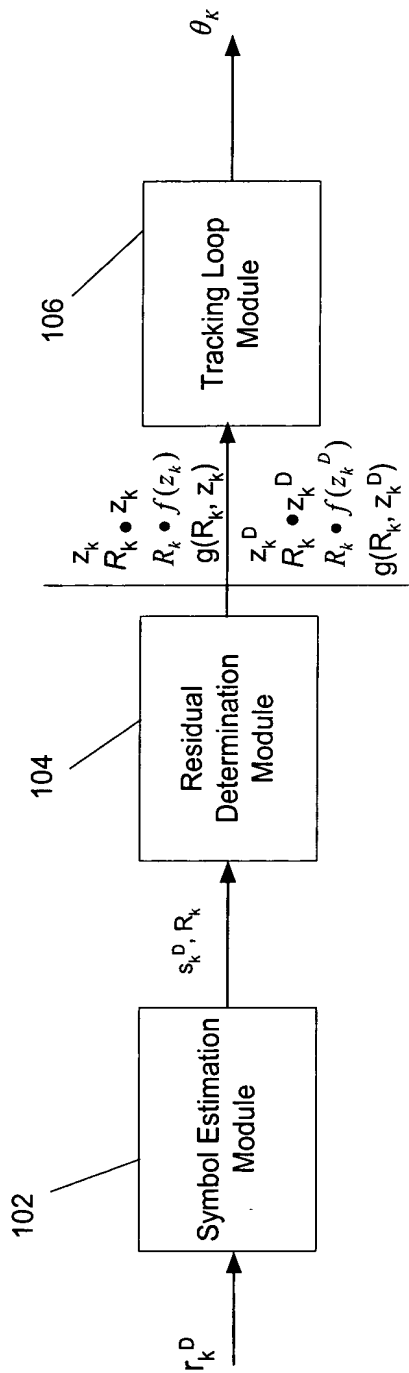


Figure 4B

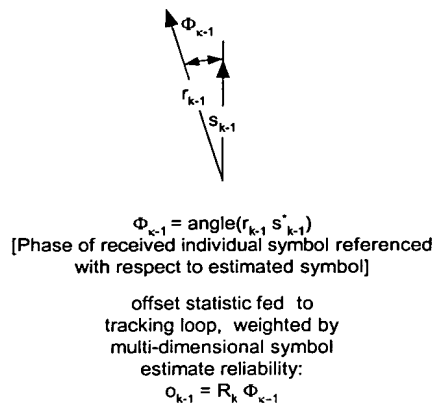


Figure 5A

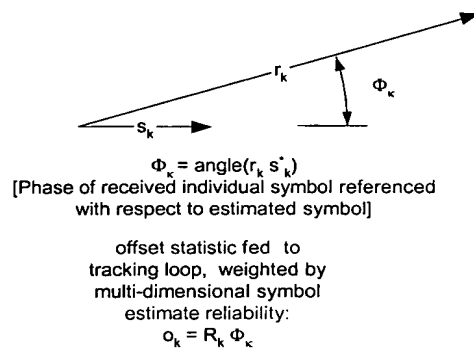
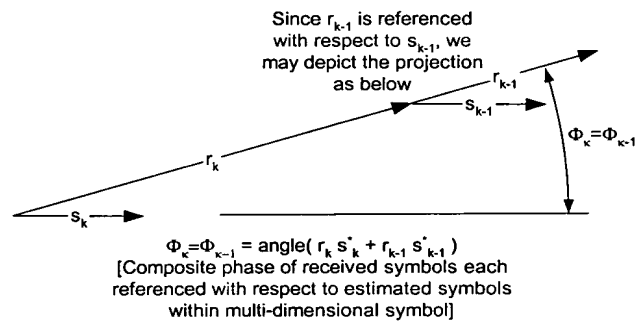


Figure 5B

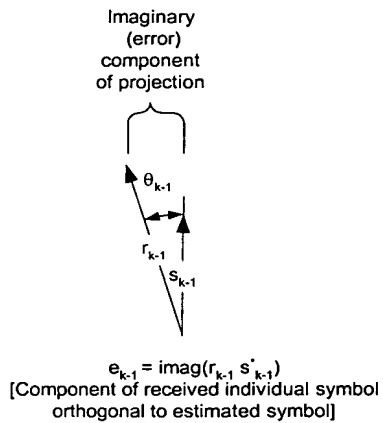


offset statistic fed to tracking loop, weighted by multi-dimensional symbol estimate reliability:  

$$o_k = o_{k-1} = R_k \Phi_k$$

This may be sent to tracking loop once per multi-dimensional symbol, or repeated for every individual symbol

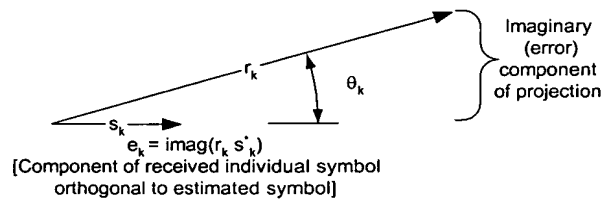
Figure 5C



offset statistic fed to tracking loop, weighted by multi-dimensional symbol estimate reliability:  

$$o_{k-1} = R_k e_{k-1}$$

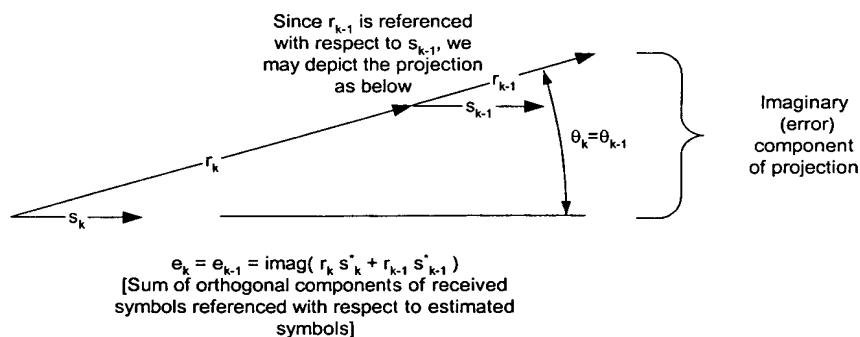
Figure 6A



offset statistic fed to tracking loop, weighted by multi-dimensional symbol estimate reliability:  

$$o_k = R_k e_k$$

Figure 6B



offset statistic fed to tracking loop, weighted by multi-dimensional symbol estimate reliability:  

$$o_k = o_{k-1} = R_k e_k$$

This may be sent to tracking loop once per multi-dimensional symbol, or repeated for every individual symbol

Figure 6C

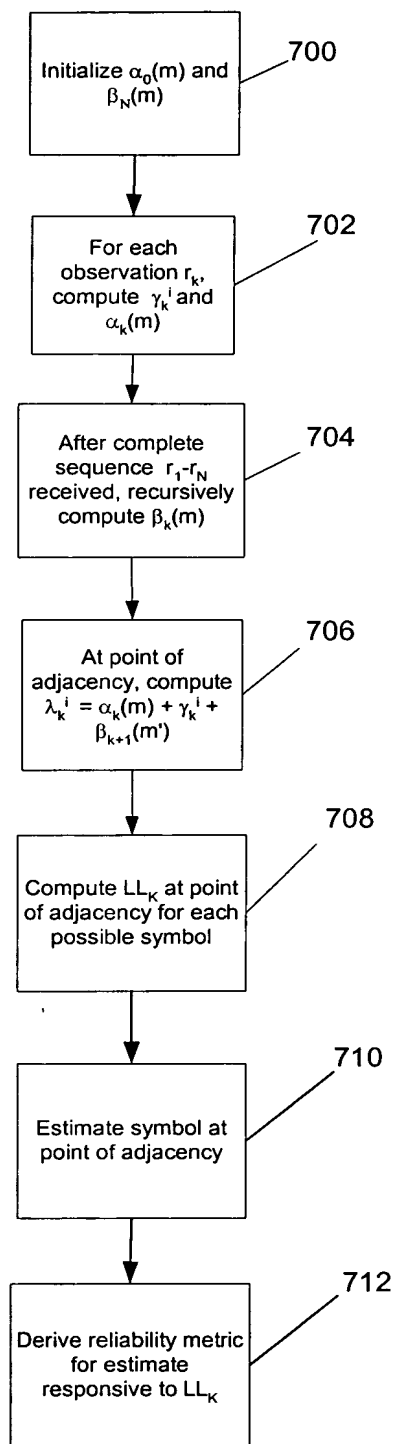


Figure 7

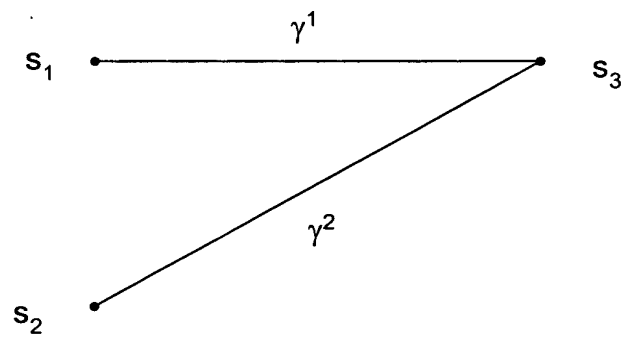


Figure 8

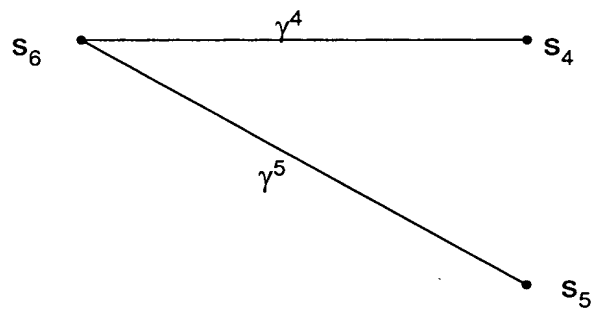


Figure 9

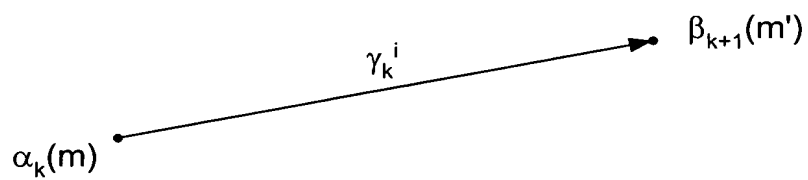


Figure 10



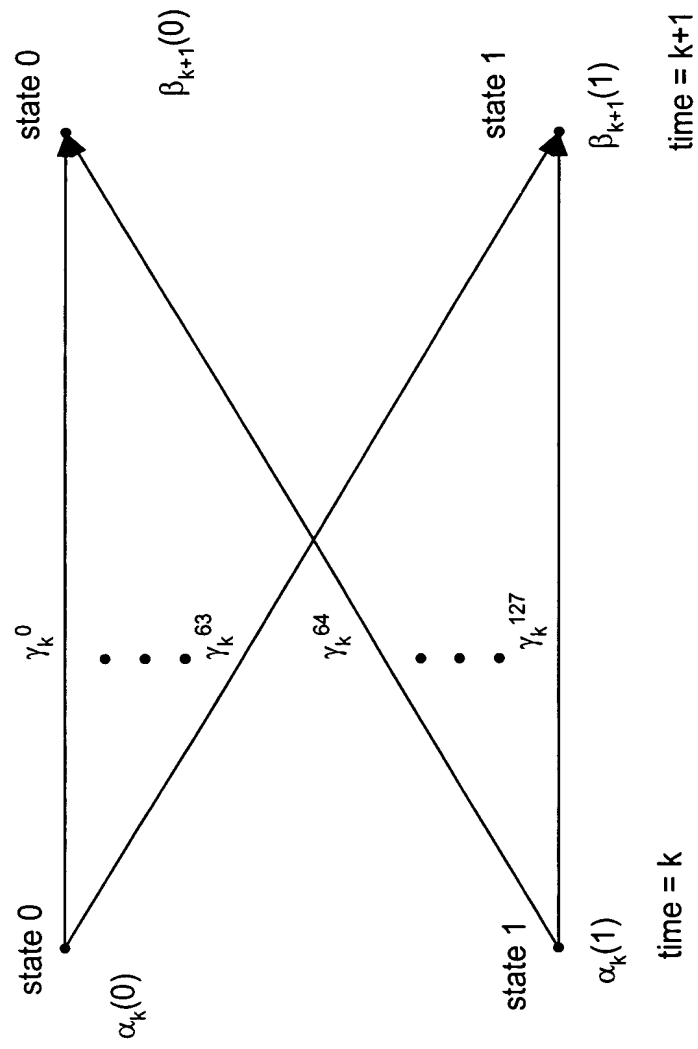


Figure 11